

Use of Information Communication Technology in Local Government Through the Module Registry Office

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Abstract – Using information and communication technology, the local government collects and analyzes vast amounts of data resulting in better service to citizens.

In this paper there are the elements of the module development office, as part of an integrated information system of local governance, which covers an important part of local government operations. The findings, after using the module Registry, show that employees have improved automatic operation in order to execute its duties in serving citizens. It turned out that the number of parties who come into local government to resolve certain administrative matters, was significantly reduced, the possibility of congestion and overload of employees was lower, greater citizen satisfaction with services that local government is trying to better meet the needs of its citizens.

I. INTRODUCTION

Application of advanced information and communication technology is the result of proper use of knowledge in the processes of research and development. There is a growing need for information, which condition, the greater complexity of a computer system is used as the primary means inevitably to work.

The information system is any system developed for the purpose of creating, gathering, storage, transmission, processing and interpreting information.

This work is aimed to explore the possibility of access to information and improving communication.

The Registry is an organizational unit that performs communication with people - legal and physical - that come into contact with local authorities and most importantly, that registers used document in the process of communication.

The main task of the module is to meet the needs and expectations of all stakeholders.

According to the Law on State Administration, the Regulation on office management of state administration shall defines the activities that include office operations, as follows:

" The Registry is an organizational unit where the following tasks are performed: receiving submissions from the parties, reception, opening, reviewing mail and

scheduling, tracking of cases; pair acts, acts of submission of the case and the internal organizational units; mail forwarding, keeping to-do items, distributing objects and their archiving - storing, "[1]

The objectives of work are clearly and precisely defined, and that is to point to the improved interaction between users and software so that computers will make their work more appropriate and easier.

II. CURRENT PROBLEMS AND REQUIREMENTS FOR LOCAL GOVERNMENT

The information system enables a business module that shows current issues and developments in a particular environment.

The conclusion of the analysis of local government operations and modern information technology (modern media and communications), is that the administration fails to comply with IT trends, both in internal operations and in dealing with citizens.

In order to fulfill the needs of local people and local governments need to perform tasks that are defined to achieve specific functional requirements.

The classification, systematization, analysis and business process automation and implementation of software modules are necessary.

On this basis, should be done:

- analysis of existing hardware,
- analysis software with the existing documentation,
- defining job requirements,
- vocational education staff members,
- development of software modules,
- implementation of software solutions module registry office.

It is necessary to consider and determine the current state of equipment and usage and purpose.

Based on that information the exploitation is made on new network infrastructure.

It is necessary to perform the following:

- determine the number and dimensions of the network, as well as the redistribution of resources (observe the distribution of users in relation to physical and logical parts of the network),
- determine the connectivity of geographically distant locations (consider their availability for each location),
- identify needs related to the bandwidth of certain segments,
- for each organizational unit information system is necessary to establish requirements for performance, the requirements for availability and requirements for future expansion,
- analyze the data to be transmitted over the network,
- analysis of network services and the role of certain services as well as their responsibility,
- analysis of safety aspects.

It is necessary to analyze the request for resources, since in the network, as follows:

- analysis of requirements for resources, applications used on workstations in the network,
- analysis of the protocol to be used on the network (some of the popular protocols may affect the degradation of performance in certain situations),
- analyze some of the negative aspects of networking protocols (to be taken into consideration in the early stages of design and according to them to choose the most appropriate technical solution),
- identify all network services (performed their analysis performance, availability, ...)
- analysis of TCP / IP infrastructure (addressed issues related to domain name registration, determine policies of awarding IP address),
- analysis of the organization of technical support (a component that affects the cost of maintaining the whole system),
- analysis tools and approach to the management network in operation (selection of tools for monitoring and analysis of the network in operation).

Network infrastructure must end user to provide the required conditions for working with information systems. You need to answer a few questions:

- Who needs what data?
- When they need them?

- Where data should be transferred?

Also, you need to know where the data is physically located, and where their customers are. This information can be used within the prescribed volume of traffic on the network.

Technical requirements are viewed through a group of conditions, including:

- human resources required for implementation,
- training of staff for the design and use of model administrative offices,
- defining the architecture of information system,
- computer network.

A number of staff required to implement the model and need training to use information technology are considered as human resource needs.

Besides the necessary computer equipment, communication and other related equipment, of the particular importance are the human resources. It is recommended that IT staff necessary for the management module of the following structures:

Table 1 - Outline for module

Job Title	No. executor
administrator	1
worker to receive items	1
senior officer responsible for AOP	1
head of Department	1
TOTAL	4

Particularly important role in the implementation of the module should have a continuous activity of education personnel, automation of their work, as well as adequate forms of functional organization.

Training of personnel is a key requirement in the implementation of the module. Existing levels of knowledge of staff and the development of informatics require continuous innovation of knowledge.

The training program for the module:

- completing the basic course of MS Office,
- seven-day training for application and use of software applications.

III. ACTIVITIES AND FUNCTION MODULES

Module Registry is to provide an efficient system of data collection and processing, effective use of information and coordination of mutual customers to achieve the set objectives:

- establish a uniform system of marking and classification in the registry office,
- provide better exercise the duties and tasks in business writing office,

- increased efficiency and better management office,
- increasing the efficiency and economy in the process of filing office,
- timely and quality reporting.

The intention is to achieve the following:

- streamlining administrative tasks,
- assist in the management and decision-making (local authority),
- achieving effective communication between business entities,
- provide conditions for better planning,
- an efficient service to citizens.

Based on records kept in the Registry at any given time there should be a place where information about a particular document, but are also capable of processing the document.

The Registry software module contains the basic functionality needed for contact and interaction with citizens and businesses.

Community portal module is integrated with information systems to monitor cases and their resolution. It is provide for the possibility of upgrades.

The following will describe the content and the way of work of this module.

The basic functionality of the:

Opening a new case

- input of basic data on the subject (with automatic or manual allocation of a single case), the applicant's case and forwarded the case on solving the appropriate authority,

View and select items

- review of cases by subscribing to various criteria,

Amendments to Item

- amendments to the subject (subsequently submitted for the course),

Data exchange on the subject

- allows easy access to the file and update your case and the applicant objects,

Code lists

- are essential to the functioning of the classification, the types of cases, the method of solving the case, a description (or areas) of the object, a means of settling complaints, location of the object and so on,

Acts subjects

- according to the classification label items should contain the data on acts that are attached to the subject,
- there is the ability to scan every document that is submitted to the case and their placement in the database,

Linking to objects

- allows you to create links between related objects (possibly an object causes another object),

Complaint

- records of complaints and update the item (the possibility of entering the method of solving complaints in the first and second degree),

List of documents

- the possibility of case management through the list of acts.

The Registry also provides:

- records of an object by authorities and delivery of items outside of municipal administration,
- allocation of cases to resolve the referent
- monitoring the status of cases,
- scanning of documents that are attached to the case and documents generated in the process of resolving cases,
- archiving and for delivery to the archive,
- searching and indexing of documents,
- printer cover objects (by the law office management), printing and shipping books daily cases by departments of municipal administration,
- print confirmation of receipt of the referral (according to the instruction office operations),
- reverse the records of cases,
- periodic report
(for open cases by departments, according to the classifications, review non-archived documents, etc.).

The basic advantages of an integrated information system are:

- unique computer and communications networks,
- a single unified application software,
- integrated database,
- the existence of electronic documents,
- quality and efficient preparation and decision making,

- effective internal and external communication,
- improving service quality,
- effective monitoring of the total cost.

Steps towards an integrated information system are:

- purchase of computer, networking and communications equipment - the server computer local area networks and PCs newest generation of laser printers, devices, and connectors for computer networking, security at power failure ...
- connect computer equipment to a local computer network - made the cabling and connectivity in the office of the municipal building,
- improvement of the operating system for all PCs - the operating system and Microsoft Office (Word, Excel, Access, Adobe Reader, Outlook).

IV. RESEARCH RESULTS

For a long time there's a strong need for citizens, small and medium enterprises by the municipal administration, the newer type of services that would reduce the noticeable slowness and inefficiency, a logical step toward meeting the needs of citizens through the application of information system modules Registry.

The case study was based on the starting point - the establishment of service center where the work is included in the Registry module, which is the basis of information system that provides a basis for further development and improvement of citizens' relations with the local government.

A sample survey in the management of local government and municipal government employees and citizens who applied within the module Registry Information System Local.

For all activities during the survey are included the municipal government in cooperation with professional staff.

Using the *method of content analysis* (a combination of observation and questioning techniques) that is based on the collection of data on a variety of amenities, social communication with citizens, to keep the information flowing freely between administrative authorities and citizens better access to services with lower costs.

The *method of modeling* is a research procedure, and it is used as a method of modeling analysis, education, engineering and service center and information system implementation where the implementation process in the use of the software module registry.

The experimental method is practical - theoretical knowledge, and it is organized behavior and observation groups.

During the research the following is done:

1. study problems with other organs of administration,
2. analysis of hardware requirements for the need to establish the center,
3. software requirements analysis for troubleshooting,
4. design and production plan for implementation,
5. staff training,
6. implementation modules.

When research is discussed:

- analysis of the use of computer literacy of employees,
- analysis on the implementation of the tasks,
- analysis of hardware support,
- analysis using software solutions,
- analysis of the willingness of management and employees to accept a new way to work,
- defining software solutions.

The following table provides an overview of responses to various questions.

TABLE 1
"DO YOU USE COMPUTERS FOR PERFORMANS OF WORK OBLIGATIONS?"

Answer	Yes, surely		It should		No	
employees	35	68,63%	11	21,57%	5	9,80%
elected persons	15	60%	3	12%	7	28%
total	50	65,79%	14	18,42%	12	15,79%

Modernising local government is a radical change in the traditional way of performing administrative tasks, which means that citizens no longer need to go from one counter to a request submitted. It is important to communicate with citizens and of the especially importance is the use of modern communication technologies in their work.

TABLE 2
"ARE YOU FOR MODERNIZATION OF MUNICIPAL SERVICES?"

Answer	Yes		Shall		It should not be	
employees	30	57,69%	16	30,77%	6	11,54%
citizens	25	49,01%	21	41,18%	5	9,80%
total	55	53,40%	37	35,92%	11	10,68%

Based on research results we can make a conclusion that information technology facilitate the rapid implementation of ICT solutions. It is necessary to use ICT for communication and services because this way allows the efficiency and transparency in the collaboration.

TABLE 3

"DOES MODERNIZATION OF CITIZENS CAN IMPROVE RELATIONS WITH THE LOCAL GOVERNMENT?"

Answer	Yes, it can		Probably		Do not know	
employees	32	62,74%	17	33,33%	2	3,92%
citizens	29	53,70%	20	37,03%	5	9,26%
total	61	58,09%	37	35,24%	7	6,67%

Modernization requires planning and execution of many activities that will enable the development of better organization of the administrative authority. The introduction of information systems increases the quality of services and improve efficiency, accountability and effectiveness of government.

TABLE 4

"WHETHER THE LEADERSHIP AND STAFF ARE READY TO ACCEPT MORE MODERN MODE?"

Answer	Yes		Probably		Not entirely be	
employed	23	65,7%	11	31,43%	1	2,86%
management	19	51,3%	14	37,84%	4	10,81%
total	42	58,3%	25	34,72%	5	6,94%

The results have an impact on the modernization of municipal services which in turn will affect the efficiency of performing delegated tasks, including:

- the possibility of solving the problems of the modern handling,
- connectivity services in the work which improves the efficiency and timeliness,
- improve business relations with citizens,
- improvement in work - a very high level of citizen satisfaction,
- increasing the number of actual services - essentially part-time service delivery,
- saving the cost of services.

TABLE 5

"DID SOLVING SOFTWARE MAKES IT EASIER FOR YOUR REQUIREMENT?"

Answer	Yes		Probably		Not entirely be	
employed	35	68,63%	11	21,57%	5	9,80%
management	15	60%	3	12%	7	28%
total	50	65,79%	14	18,42%	12	15,79%

The proposed research stems from the need to service the state administration system adapts to the needs of contemporary society and reduced to the level of modern technologies and their applications.

V. CONCLUSION

Modern information and communication infrastructure that allows uninterrupted information flows between government and citizens, it serves the citizens better access to services at lower cost.

Information and communications technology has enormous possibilities in terms of modernization of local government and improve services provided to citizens.

Community portal module enables the creation of the main modules of the municipal administration.

The introduction of modern information systems increases the quality of services and improve efficiency, transparency, accountability and effectiveness of local government.

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